ability can obtain a free-place in a secondary school; and the brilliant pupil can proceed from this stage to a higher by means of senior scholarships. We are reminded of the efficiency of this educational ladder by a return just made to the Somerset County Council by the County Education Committee. It appears from this report that twenty-five out of the thirty senior county scholars referred to in it were enabled by the Education Committee's system of scholarships to pass from a public elementary school to a university or a university college. Many of the senior scholars have had remarkably successful careers since their university courses, and some have reached exceptional distinction. The return as a whole is very gratifying, and the result is due in part at least to the committee's policy of awarding scholarships of any grade only when candidates of really satisfactory merit present themselves.

Mr. J. A. Pease, Minister of Education, last week received at the offices of the Board in Whitehall, an influential deputation representing the civic, commercial, and educational life of Nottingham, and headed by the Duke of Portland, on the subject of granting the status of a university to University College, Nottingham. His Grace gave a *résumé* of the history of the college, emphasising the fact that its work would bear favourable comparison with that of the majority of the modern universities in the country. The time had now come when steps should be taken to broaden the constitution of the college, to place it in the same position as other similar institutions, and to establish it definitely as the university centre of the east midlands, spreading the responsibility for its government and maintenance over the area which it serves. Principal Heaton dwelt upon the educational work in the college itself, especially its honours, post-graduate, and research work, upon the home the college afforded to local branches of various national associations (such as Classical, Historical, English, Workers' Educational, Chemical Industry), and on the increased facilities it now offered for social intercourse among the students. The patriotic side of its work was well represented by its efficient Officers Training Corps, and the fact that it was the first college in England to form for women students a voluntary-aid detachment of the Red Cross Association. In his reply, Mr. Pease said:—"I appreciate, and the Board of Education appreciates, the desires of the people of Nottingham, their ambition, their aspiration, in connection with the formation of what one might call a full-blown university. There are schools of thought which think provincial universities have already been established in enough centres up and down our land. I am not one of those who take this view; I believe that there is work for additional universities, and I for one would be very glad to see a provincial university which would meet all requirements in connection with the wants of the people in the east midland area."

SOCIETIES AND ACADEMIES.

Edinburgh.

Royal Society, March 16.—Prof. James Geikie, president, in the chair.—Rev. T. R. R. **Stebbing**: Stalk-eyed Crustacea Malacostraca of the Scottish National Antarctic Expedition. Most of the fifty specimens described were collected by the *Scotia* at various stations during its voyage out and home, so that not more than ten could claim to be Antarctic or sub-Antarctic in their place of capture. Six new species were described, viz., *Coryrhynchus algicola, Eupagurus modicellus, Gennadas kempi, Nauticarus brucei, Phye scotiae, P. rathbunae.*—D. W. **Steuart** and Ingvar **Jörgensen**: Note on the atmospheric electrical potential gradient in industrial districts. The experiments were carried out in the neighbourhood of Leeds. The chief feature was the magnitude of the potential gradient under certain conditions.—J. B. **Robertson**: A chemical examination of the organic matter in oil-shales. Thirteen samples had been analysed. The carbon hydrogen ratio varied from 6 to 8, the lower ratio belonging to the shale yielding the larger amount of oil produced from a definite percentage of organic matter. The ratios were lower than that of ordinary bituminous coal. The organic matter, the main bulk of which was insoluble in organic solvents, was the product of the decomposition of vegetable substance (algæ, spores, etc.), similar in nature to what was found in peat and cannel coal.

Paris.

Academy of Sciences, April 14.—M. P. Appell in the chair.—L. E. **Bertin**: Calculation of the increase of load or of velocity obtainable by increasing the dimensions of ships. A development of some consequences of a formula given in an earlier communication.—G. **Gouy**: The absorbing power of the electric arc for its own radiations. Confirming results previously obtained with flame spectra, a complete opacity of the vapour for the line it produces is never observed. The absorptive power is between 0·5 and 0·7 for the very strong lines, and less for the weaker lines.—A. **Laveran**: New facts tending to demonstrate that Mediterranean kala-azar is identical with the Indian kala-azar. Comparative inoculation experiments were carried out on monkeys, dogs, and mice. *Macacus cynomolgus* rendered immune to the Mediterranean kala-azar is refractory to the Indian virus, whilst another animal of the same species, inoculated under the same conditions as the first, and serving as a control, rapidly contracted a fatal infection. From this it is concluded that the diseases are identical.—A. **Bilimovitch**: The canonical transformations of the equations of motion of a non-holonomial system.—L. **Dunoyer** and R. W. **Wood**: Photometry of the superficial resonance of sodium vapour under the stimulation of the D lines. Fineness of the resonance lines. The magnitude of the resonance lines was of the order of 0·03 Ångström.—Félix **Ehrenhaft**: Minimum quantities of electricity and the existence of quantities (quanta) smaller than the charge of an electron. The electrical charges of particles of mercury and gold in the colloidal state were determined, the spherical shape of the particles under examination being previously proved by the microscope. The minimum charge is not the charge of the electron.—Albert **Perrier** and H Kamerlingh **Onnes**: The interpretation of the magnetic properties of mixtures of oxygen and nitrogen. The molecular field varies inversely as the third power of the mean distance of the oxygen molecules.—R. **Fosse**: The gravimetric quantitative analysis of urea. The urea is precipitated from an acetic acid solution with xanthydrol, and the compound weighed. Its composition is definite, and can be controlled by analysis.—J. **Bergonié**: The rational distribution of meals in man in the nycthemeral cycle. The best times are shown to be 7.30 a.m. for principal meal, 4.30 p.m., and 8 p.m.

BOOKS RECEIVED.

Echinoderma of the Indian Museum. Part viii. Echinoidea (1). By Prof. R. Koehler. Pp. 258+xx plates. (Calcutta: Indian Museum.) 20 rupees.

Gibt es denkende Tiere? By Dr. S. v. Máday. Pp. xiv+461. (Leipzig and Berlin: W. Engelmann). 9.60 marks.

Die wichtigsten Lagerstätten der "Nicht-Erze." By Dr. O. Stutzer. Zweiter Teil. Kohle (Allgemeine

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Kohlengeologie). Pp. xvi+345+xxix plates. (Berlin: Gebrüder Borntraeger.) 16 marks.

Ministry of Public Works, Egypt. Zoological Service. Report on a Zoological Mission to India in 1913. By Capt. S. S. Flower. Pp. viii+100+xii plates. (Cairo: Government Press.) 5*s*.

Mysore Geological Department. Report of the Chief Inspector of Mines for the Year 1912–13. With Statistics for the Calendar Year 1912. Pp. 59+tables. (Bangalore: Government Press.) 2 rupees.

Nedboriagttagelser i Norge. Utgit av det Norske Meteorologiske Institut, Middelvœrdier, Maksima og Minima. Pp. xxii+79+79+iv plates+maps. (Kristiania: H. Aschehoug and Co.) 3 kroners.

The Foundations of Character. By A. F. Shand. Pp. xxxi+532. (London: Macmillan and Co., Ltd.) 12*s*. net.

Marriage Ceremonies in Morocco. By Prof. E. Westermarck. Pp. xxi+422. (London: Macmillan and Co., Ltd.) 12*s*. net.

Icones of the Plants of Formosa, and Materials for a Flora of the Island. By B. Hayata. Vol. iii. Pp. iv+222+xxxv plates. (Taihoku: Bureau of Productive Industries.)

La Cémentation de l'Acier. By Prof. F. Giolitti. French translation by M. A. Portevin. Pp. 548. (Paris: A. Hermann et Fils.) 16 francs.

Traîté de Physique. By Prof. O. D. Chwolson. Translated by E. Davaux. Tome Cinquième. Premier Fascicule. Champ magnétique variable. Pp. vi+266. (Paris: A. Hermann et Fils.) 9 francs.

Publications de la Société de Chimie-Physique. vii., Le Paramagnétisme appliqué a l'Etude des sels Métalliques. By Mlle. E. Feytis. Pp. 27. viii., Relations entre la constitution Chimique et la Coloration des Corps Organiques. By M. A. Meyer. Pp. 48. (Paris: A. Hermann et Fils.) 1 franc and 2 francs respectively.

Encyclopédie de Science Chimique Appliquée. Tome v. Principes d'Analyse et de Synthèse en Chimie Organique. By M. Hanriot, Prof. P. Carré, A Seyewetz, Prof. E. Charabot, and Dr. A. Hébert. Pp. 795. (Paris and Liége: Ch. Béranger.) 30 francs.

DIARY OF SOCIETIES.

THURSDAY, April 23.

Royal Geographical Society, at 5.—The East African Trough: J. Parkinson.

Child Study Society, at 7.30.—Raising the Standard of Child Upbringing Rev. J. C. Pringle.

Concrete Institute, at 7.30.—The Architect and Structural Engineering: W. E A. Brown.

Institution of Electrical Engineers, at 8.—Electrification of Railways as affected by Traffic Considerations: H. W. Firth.

Royal Society of Arts, at 4.30.—The Port and City of Rangoon: G. C. Buchanan.

FRIDAY, April 24.

Royal Institution, at 9.—The Stars around the North Pole: Dr. F. W. Dyson.

Junior Institution of Engineers, at 8.—A Visit to the Iron Districts of French Alsace: G. Evetts.

Institution of Mechanical Engineers, at 8.—Application of Electrical Driving to Existing Rolling Mills: L. Rothera.

SATURDAY, April 25.

Royal Institution, at 3.—Similarity of Motion in Fluids. I. The Theory of Similarity of Motion in Fluids and the Experimental Proof of its Existence: Dr. T. E. Stanton.

MONDAY, April 27.

Royal Society of Arts, at 8.—Some Recent Developments in the Ceramic Industry: W. Burton.

Royal Geographical Society, at 8.30.—The Land of the Ibibios (Southern Nigeria): P. A. Talbot.

Institute of Actuaries, at 5.—Section 72 of the National Insurance Act. Some other Features of Friendly Societies and National Insurance, including a Note on the Proposed Belgian National Insurance Act: E. B. Nathan.

TUESDAY, April 28.

Royal Institution, at 3.—Problems of Physical Chemistry. 2. Structure of Matter at low Temperatures: Dr. W. Wahl.

Royal Society of Arts, at 4 30—The Administration of Imperial Telegraphs: C. Bright.

Royal Anthropological Institute, at 8.15.—Some Hopi Textiles from the Pueblo of Hano: Miss B. Freire Marreco.

Eugenics Education Society, at 8.30.—Le Mesure de l'Intelligence: Dr. Simon.

WEDNESDAY, April 29.

Royal Society of Arts, at 8.—The Need for a Better Organization of Economic and Industrial Resources: C. R. Enock.

Geological Society, at 8.—On the Lower Jaw of an Anthropoid Ape (Dryopithecus) from the Upper Miocene of Lérida (Spain): Dr. A. Smith Woodward.—The Structure of the Carlisle—Solway Basin and the Sequence of its Permian and Triassic Rocks: Prof. J. W. Gregory.

THURSDAY, April 30.

Royal Society, at 4.30.—*Probable Papers:* The lack of Adaptation in the Tristichaceae and Podostemaceae: Dr. J. C. Willis.—The Genetics of Tetraploid Plants in *Primula sinensis*: R. P. Gregory.—The Action of certain Drugs on the isolated Human Uterus: J. A. Gunn.—The Presence of Inorganic Iron Compounds in the Chloroplasts of the Green Cells of Plants, considered in Relationship to Natural Photo-synthesis and the Origin of Life: Prof. B. Moore.—The Influence of Osmotic Pressure upon the Regeneration of *Gunda ulvae*: D. J. Lloyd.—(1) *Glossina brevipalpis* as a Carrier of Trypanosome Disease in Nyasaland. (2) Trypanosome Diseases of Domestic Animals in Nyasaland. *Trypanosoma pecorum*. Part III. Development in *Glossina morsitans*: Sir D. Bruce, Major A. E. Hamerton, Capt. D. P. Watson and Lady Bruce.

Royal Institution, at 3.—The Last Chapter of Greek Philosophy: Plotinus as Philosopher, Religious Teacher and Mystic: The very Rev. W. R. Inge.

FRIDAY, May 1.

Royal Institution, at 9.—A Criticism on Critics: E. F. Benson.

Junior Institution of Engineers, at 8.—The Control and Organisation of the Engineering Profession: S. T. Robson.

Geologists' Association, at 8.—A Geological Excursion in Matabeleland: F. P. Mennell.

SATURDAY, May 2.

Royal Institution, at 3.—Similarity of Motion in Fluids. (2) The General Law of Surface Friction in Fluid Motion: Dr. T. E. Stanton.

British Psychological Society.—The Psychology of Play with special reference to the value of Group Games in Education: Miss M. J. Reaney.—Corresponding points: Prof. C. Spearman.—An attempt at an exact Estimation of Character: E. Webb.

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Editorial and Publishing Offices:
MACMILLAN & CO., Ltd.,
ST. MARTIN'S STREET, LONDON. W.C.

Advertisements and business letters to be addressed to the Publishers.

Editorial Communications to the Editor.

Telegraphic Address: Phusis, London.
Telephone Number: Gerrard 8830.

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